

Houghton Chemical Corporation

52 Cambridge Street
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**HOUGHTON****IMPORTANT EMPTY DRUM HAZARD WARNING**

This is to alert you to a serious safety problem with emptied product drums. You may incur a legal liability as a result of any accident or injury from the misuse of such drums.

As you know, emptied chemical drums can be diverted into other uses such as trash barrels, barbeque grills, staging or flotation aids of one kind or another. This is a dangerous practice, because supposedly "empty" drums may contain residual liquid and or vaporized amounts of the original (or any other) product. Exposure of these empty drums to any source of spark or flame, especially welding torches or a static electric discharge, can cause fire, violent explosion, or the release of toxic vapors. The danger is very real and in the recent past there have been several "empty drum" accidents which have caused severe injuries. In addition, careless handling can expose individuals to hazardous residues unless all the precautions for the container's original contents are observed. Dispose of empty drums by sending to a professional drum reconditioner.

In recognition of this danger, we inform you and anyone who possesses full or "empty" drums to affix a special hazard warning on them next to or on the product label. A suggested text might be:

ATTENTION!

THIS CONTAINER IS DANGEROUS WHEN EMPTIED.

MAY STILL CONTAIN VAPORS OR LIQUIDS THAT ARE FLAMMABLE OR TOXIC OR BOTH.

KEEP CLOSED.

AVOID BREATHING OR TOUCHING CONTENTS.

KEEP ALL HEAT, SPARKS AND FLAMES AWAY.

DO NOT CUT OR WELD ON OR NEAR THIS CONTAINER.

DO NOT REFILL UNTIL CLEANED AND DRIED BY A PROFESSIONAL DRUM RECONDITIONER.

Also, there is available a pre-printed empty drum warning label from "Labelmaster" in Chicago, Illinois. Their telephone number is 1-800-621-5808. Request information related to their empty drum label.

Although we cannot guarantee that such a warning will prevent accidents or release you from liability, we strongly recommend that, in addition to product labels which contain appropriate hazard warning and precautionary information, you begin using an empty drum warning statement on the containers you fill, distribute or use.

We also urge you, and it is your duty, to inform your customers, employees, especially plant personnel, warehousemen, and shippers of the dangers inherent in the handling and misuse of empty containers, and that such containers be reused only after cleaning and processing by an experienced drum reclaimers.

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Distributors of Solvents and Chemicals
Manufacturers of Automotive Chemicals
Importers of Raw Materials

Founded in 1927 by Philip A. Houghton



**PRIMATECH
MATERIAL SAFETY DATA SHEET**

"PRIMA TECH UNIVERSAL ANTIFREEZE"

**SECTION 1
IDENTIFICATION**

MANUFACTURER: Houghton Chemical Corporation

ADDRESS: 52 Cambridge Street, Allston, MA 02134

EMERGENCY TELEPHONE: (617) 254-1010, 1-800-777-2466 or
Chemtrec 1-800-424-9300

CHEMICAL NAME & SYNONYMS: Permanent Antifreeze and Summer Coolant

CHEMICAL FAMILY: Ethylene Glycol Based

FORMULA: Trade Secret

CAS REGISTRY NUMBER: Not Applicable for blended product

DOT SHIPPING CLASSIFICATION: Not regulated in quantities containing less than 5,000
pounds of ethylene glycol

PRODUCT NUMBER: PTAF-2101F, PTAF-2101R, PTAF-2155F, PTAF-
2155R

**SECTION 2
HAZARDOUS INGREDIENTS**

MATERIAL	CAS #	%	TLV (Units)
Ethylene Glycol	107-21-1	90-95	50 ppm
Diethylene Glycol	111-46-6	≤ 5	Not applicable
Water	7732-18-5	3	Not applicable
Corrosion Inhibitors	(TSR#40670300-500P)	2	Not applicable

SECTION 3 PHYSICAL DATA

BOILING POINT @760 mm Hg.:	325°F
FREEZING POINT:	-4°F
SPECIFIC GRAVITY:	1.12
VAPOR PRESSURE AT 20°C:	0.1
VAPOR DENSITY (air = 1):	2.1
SOLUBILITY IN WATER:	Complete
% VOLATILE BY VOLUME:	Greater than 95%
EVAPORATION RATE:	Less than 1
APPEARANCE AND ODOR:	Fluorescent green; mild odor

SECTION 4 FIRE AND EXPLOSION HAZARD DATA

FLASH POINT:	250°F - TOC 225°F - TCC
AUTO IGNITION TEMPERATURE:	Not Applicable
FLAMMABLE LIMITS IN AIR:	LEL = 3.0UEL = 16 (calculated)
EXTINGUISHING MEDIA:	Water, fog, alcohol foam, dry chemical or CO ₂ for small fires
SPECIAL FIRE FIGHTING PROCEDURES:	A solid stream of water directed into hot burning liquid can cause frothing.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None

SECTION 5 REACTIVITY DATA

STABILITY:	This material is stable.
INCOMPATIBILITY:	Keep away from strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS:	Burning can produce carbon dioxide or carbon monoxide.
HAZARDOUS POLYMERIZATION:	Will not occur.

SECTION 6
HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE:	50 ppm (vapor or mist)
EFFECTS OF OVEREXPOSURE:	Irritating to eyes and skin. Inhalation irritates nose and throat. High vapor concentration causes nausea, vomiting and headaches.
Eye Contact:	Irritation may result.
Skin:	May be mildly irritating to skin. Slightly toxic on prolonged or repeated contact.
Inhalation:	Exposure to high vapor concentration from heated antifreeze coolant or exposure to mists may produce nausea, vomiting, headache, dizziness and irregular eye movements.
Ingestion:	Swallowing causes abdominal discomfort or pain, dizziness, lumbar pain, oliguria, uremia and central nervous system depression. Large volumes cause kidney damage and can be fatal.

EMERGENCY AND FIRST AID PROCEDURES:

Eyes:	Flush with plenty of water for at least 15 minutes.
Skin:	Flush with plenty of water, wash with mild soap if available.
Inhalation:	Remove to fresh air; give artificial respiration if breathing has stopped.
Ingestion:	If swallowed, IMMEDIATELY contact a poison center, emergency treatment center, or physician.

SECTION 7 SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE THE MATERIAL IS SPILLED OR RELEASED:

Wear suitable protective equipment. Large spills should be contained and collected. Small spills can be collected or may be absorbed with appropriate liquid absorbing materials. All spill response and disposal should be carried out in accordance with federal, state and local requirements.

WASTE DISPOSAL METHOD:

Consult with local sewer, municipal, state and/or federal agencies to determine appropriate current disposal options.

SECTION 8 SPECIAL PROTECTIVE INFORMATION

RESPIRATORY PROTECTION:

Provide adequate ventilation with local exhaust system.

VENTILATION:

Mechanical or other

PROTECTIVE GLOVES:

Rubber gloves recommended.

EYE PROTECTION:

Safety glasses or goggles.

OTHER PROTECTIVE EQUIPMENT:

Normally not required

SECTION 9 SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Do not breathe mist or spray. Follow good work/hygiene practices. Provide safety shower and wash in immediate area. Workers should wash with soap and water before eating, smoking or using toilet facilities. Launder contaminated clothing before re-use.